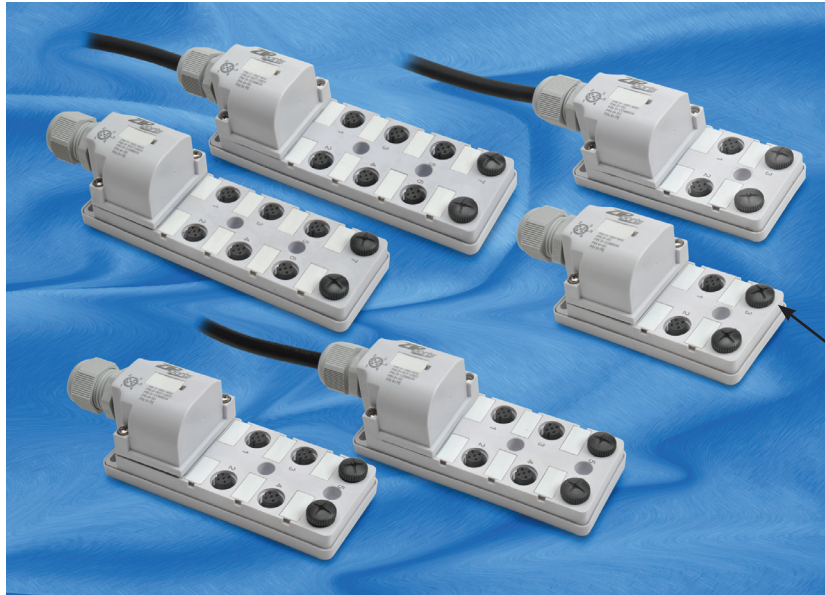




M12 Junction Blocks – Specifications



Note: 2 port caps for unused ports are included.



Overview

ZIPport multi-port interconnection junction blocks provide a simple and effective way to organize machine wiring for a variety of control systems, such as packaging equipment and conveying systems. These systems typically have many I/O points, such as sensors or

solenoid-operated valves, consolidated in one location. Many times these devices are hardwired to a junction box or separately wired back to the main control cabinet. ZIPport multi-port junction blocks provide a more efficient and cost-effective solution: a main homerun control cable is run back to the main control cabinet, so the cost associated

with errors in wiring, rewiring, and I/O replacement is greatly reduced. The designer can choose from a variety of circuit configurations in industry standard M12-style connection, in port configurations of 4-, 6- and 8-pole, with a choice of one I/O per port or two I/O per port.


ZIPport Junction Block Specifications							
Electrical Specifications							
Voltage Rating	Without LEDs: 0 to 150 V AC/DC max. With LEDs: 48VDC max, in accordance with LED Configuration						
Current Rating	3 A per connector, 8 A per block						
Technical Specifications							
Agency Approvals	UL file E328610, RoHS compliant						
Degree of Protection	IP 67, with proper field wiring cable and all ports being used or covered with a protective cap.						
Operating Temperature Range	-20°C to +80°C (-4°F to 176°F)						
Material Specifications							
Body	Polypropylene						
Inserts	Polyamide						
Coupling Nuts	4, 6, and 8-Port: PBT						
Screws	Two m3x0.5x14 screws are used to assemble backshell.						
O-Ring	BUNA-N						
Cable Gland	M20x1.5						
Recommended Cable Diameters for Field Wireable	<table border="0"> <tr> <td>With inner grommet intact:</td> <td>With inner grommet removed:</td> </tr> <tr> <td>• Max OD: 0.31" [7.9mm].</td> <td>• Max OD: 0.49" [12.5mm].</td> </tr> <tr> <td>• Min OD: For PUR Cable 0.19" [4.8mm], For PVC Cable 0.17" [4.3mm]</td> <td>• Min OD: For PUR Cable 0.28" [7.2mm], -For PVC cable 0.28" [7.2mm], -For SJT/SJE/ST/SE Cable 0.305" [7.75mm]</td> </tr> </table>	With inner grommet intact:	With inner grommet removed:	• Max OD: 0.31" [7.9mm].	• Max OD: 0.49" [12.5mm].	• Min OD: For PUR Cable 0.19" [4.8mm], For PVC Cable 0.17" [4.3mm]	• Min OD: For PUR Cable 0.28" [7.2mm], -For PVC cable 0.28" [7.2mm], -For SJT/SJE/ST/SE Cable 0.305" [7.75mm]
With inner grommet intact:	With inner grommet removed:						
• Max OD: 0.31" [7.9mm].	• Max OD: 0.49" [12.5mm].						
• Min OD: For PUR Cable 0.19" [4.8mm], For PVC Cable 0.17" [4.3mm]	• Min OD: For PUR Cable 0.28" [7.2mm], -For PVC cable 0.28" [7.2mm], -For SJT/SJE/ST/SE Cable 0.305" [7.75mm]						
LED Lens	Polycarbonate (LEDs visible only when power is supplied to the block)						
Contacts	Copper Alloy with Gold Plating						
Marker Tags	Polyamide (supplied on all units)						
Accessories	2 port caps for unused ports included. Purchase additional caps (in packs of 5) separately.						
Port Cap	Nylon						



M12 Junction Blocks – Selection



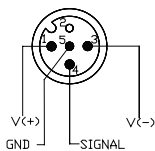
ZP-JBH85-N2-5 shown

ZIPport M12 Series Selection Chart												
Part Number	Price	Ports	Wire/Pins	Indicating LEDs	I/O per Socket	Rating per Socket	Home Run Connection Type	Wiring	Pin Out Table	Dims.	Accessories	
4 Port												
ZP-JBH44-00-FW	\$49.50	4	4/5	No LED	1	150V AC/DC max, 3 A	cable clamp for field wiring	Diagram 1-A	–	Figure 1	ZP-JBH-CAP CDP12-0B-010-AA CDP12-0B-030-AA CDP12-0B-010-BB CDP12-0B-030-BB	
ZP-JBH44-2P-FW	\$69.00			PNP	1	48VDC max, 3 A	cable clamp for field wiring	Diagram 1-B	–	Figure 1		
ZP-JBH44-2N-FW	\$69.00			NPN	1	48VDC max, 3 A	cable clamp for field wiring	Diagram 1-C	–	Figure 1		
ZP-JBH44-00-5	\$74.00			No LED	1	150V AC/DC max, 3 A	5-meter integrated cable	Diagram 1-A	Table 1	Figure 1		
ZP-JBH44-2P-5	\$88.00			PNP	1	48VDC max, 3 A	5-meter integrated cable	Diagram 1-B	Table 1	Figure 1		
ZP-JBH44-2N-5	\$88.00			NPN	1	48VDC max, 3 A	5-meter integrated cable	Diagram 1-C	Table 1	Figure 1		
ZP-JBH45-00-FW	\$62.00		5/5	5/5	No LED	2	150V AC/DC max, 3 A	cable clamp for field wiring	Diagram 2-A	–		Figure 2
ZP-JBH45-2P-FW	\$75.00				PNP	2	48VDC max, 3 A	cable clamp for field wiring	Diagram 2-B	–		Figure 2
ZP-JBH45-2N-FW	\$73.00				NPN	2	48VDC max, 3 A	cable clamp for field wiring	Diagram 2-C	–		Figure 2
ZP-JBH45-00-5	\$92.00				No LED	2	150V AC/DC max, 3 A	5-meter integrated cable	Diagram 2-A	Table 2		Figure 2
ZP-JBH45-2P-5	\$95.00				PNP	2	48VDC max, 3 A	5-meter integrated cable	Diagram 2-B	Table 2		Figure 2
ZP-JBH45-2N-5	\$95.00				NPN	2	48VDC max, 3 A	5-meter integrated cable	Diagram 2-B	Table 2		Figure 2
6 Port												
ZP-JBH64-00-FW	\$65.00	6	4/5	No LED	1	150V AC/DC max, 3 A	cable clamp for field wiring	Diagram 3-A	–	Figure 3	ZP-JBH-CAP CDP12-0B-010-AA CDP12-0B-030-AA CDP12-0B-010-BB CDP12-0B-030-BB	
ZP-JBH64-2P-FW	\$89.00			PNP	1	48VDC max, 3 A	cable clamp for field wiring	Diagram 3-B	–	Figure 3		
ZP-JBH64-2N-FW	\$89.00			NPN	1	48VDC max, 3 A	cable clamp for field wiring	Diagram 3-C	–	Figure 3		
ZP-JBH64-00-5	\$100.00			No LED	1	150V AC/DC max, 3 A	5-meter integrated cable	Diagram 3-A	Table 3	Figure 3		
ZP-JBH64-2P-5	\$106.00			PNP	1	48VDC max, 3 A	5-meter integrated cable	Diagram 3-B	Table 3	Figure 3		
ZP-JBH64-2N-5	\$106.00			NPN	1	48VDC max, 2 A	5-meter integrated cable	Diagram 3-C	Table 3	Figure 3		
ZP-JBH65-00-FW	\$80.00		5/5	5/5	No LED	2	150V AC/DC max, 3 A	cable clamp for field wiring	Diagram 4-A	–		Figure 4
ZP-JBH65-2P-FW	\$95.00				PNP	2	48VDC max, 3 A	cable clamp for field wiring	Diagram 4-B	–		Figure 4
ZP-JBH65-00-5	\$120.00				No LED	2	150V AC/DC max, 3 A	5-meter integrated cable	Diagram 4-A	Table 4		Figure 4
ZP-JBH65-2P-5	\$126.00				PNP	2	48VDC max, 3 A	5-meter integrated cable	Diagram 4-B	Table 4		Figure 4
ZP-JBH65-2N-5	\$125.00				NPN	2	48VDC max, 3 A	5-meter integrated cable	Diagram 4-C	Table 4		Figure 4
ZP-JBH65-00-5	\$120.00				No LED	2	150V AC/DC max, 3 A	5-meter integrated cable	Diagram 4-A	Table 4		Figure 4
8 Port												
ZP-JBH84-00-FW	\$75.00	8	4/5	No LED	1	150V AC/DC max, 3 A	cable clamp for field wiring	Diagram 5-A	–	Figure 5	ZP-JBH-CAP CDP12-0B-010-AA CDP12-0B-030-AA CDP12-0B-010-BB CDP12-0B-030-BB	
ZP-JBH84-2P-FW	\$84.00			PNP	1	48VDC max, 3 A	cable clamp for field wiring	Diagram 5-B	–	Figure 5		
ZP-JBH84-2N-FW	\$84.00			NPN	1	48VDC max, 3 A	cable clamp for field wiring	Diagram 5-C	–	Figure 5		
ZP-JBH84-00-5	\$121.00			No LED	1	150V AC/DC max, 3 A	5-meter integrated cable	Diagram 5-A	Table 5	Figure 5		
ZP-JBH84-2P-5	\$122.00			PNP	1	48VDC max, 3 A	5-meter integrated cable	Diagram 5-B	Table 5	Figure 5		
ZP-JBH84-2N-5	\$122.00			NPN	1	48VDC max, 3 A	5-meter integrated cable	Diagram 5-C	Table 5	Figure 5		
ZP-JBH85-00-FW	\$94.00		5/5	5/5	No LED	2	150V AC/DC max, 3 A	cable clamp for field wiring	Diagram 6-A	–		Figure 6
ZP-JBH85-2P-FW	\$112.00				PNP	2	48VDC max, 3 A	cable clamp for field wiring	Diagram 6-B	–		Figure 6
ZP-JBH85-2N-FW	\$112.00				NPN	2	48VDC max, 3 A	cable clamp for field wiring	Diagram 6-C	–		Figure 6
ZP-JBH85-00-5	\$132.00				No LED	2	150V AC/DC max, 3 A	5-meter integrated cable	Diagram 6-A	Table 6		Figure 6
ZP-JBH85-2P-5	\$138.00				PNP	2	48VDC max, 3 A	5-meter integrated cable	Diagram 6-B	Table 6		Figure 6
ZP-JBH85-2N-5	\$138.00				NPN	2	48VDC max, 3 A	5-meter integrated cable	Diagram 6-C	Table 6		Figure 6
Accessories												
Part Number	Price	Pcs/Pkg	Description							Use With		
ZP-JBH-CAP	\$3.00	5	Protective cap for unused ports.							 M12 ZipPort junction blocks		

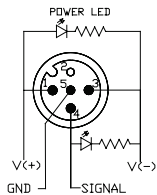
ZIPport M12 Junction Blocks – Wiring

Wiring Diagrams

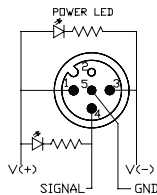
4 Port 4 Pin



No LED Version
Diagram 1-A

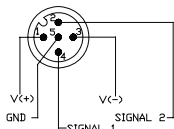


PNP Version
Diagram 1-B

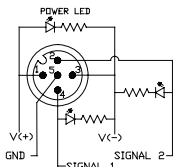


NPN Version
Diagram 1-C

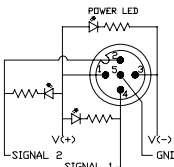
4 Port 5 Pin



No LED Version
Diagram 2-A

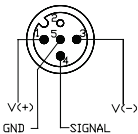


PNP Version
Diagram 2-B

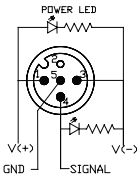


NPN Version
Diagram 2-C

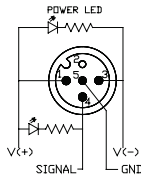
6 Port 4 Pin



No LED Version
Diagram 3-A

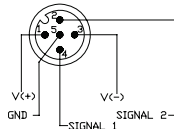


PNP Version
Diagram 3-B

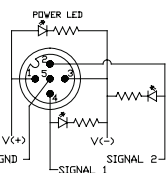


NPN Version
Diagram 3-C

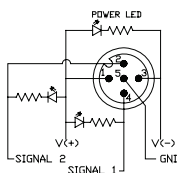
6 Port 5 Pin



No LED Version
Diagram 4-A

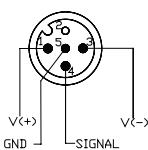


PNP Version
Diagram 4-B

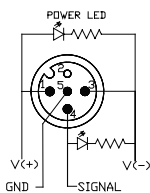


NPN Version
Diagram 4-C

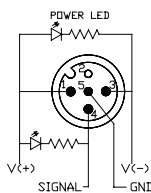
8 Port 4 Pin



No LED Version
Diagram 5-A

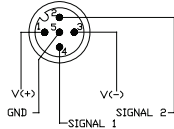


PNP Version
Diagram 5-B

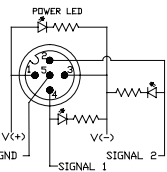


NPN Version
Diagram 5-C

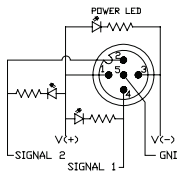
8 Port 5 Pin



No LED Version
Diagram 6-A



PNP Version
Diagram 6-B



NPN Version
Diagram 6-C

Pin Out Tables

Pin Out Table 1	
M12 4 Port 4-Pin ZipPort	
Function	Cable O.D. 0.34"
+V	Brown
-V	Blue
Ground	Green/Yellow
Port 1 Pin 4	White
Port 2 Pin 4	Green
Port 3 Pin 4	Yellow
Port 4 Pin 4	Gray

Pin Out Table 2	
M12 4 Port 5-Pin ZipPort	
Function	Cable O.D. 0.38"
+V	Brown
-V	Blue
Ground	Green/Yellow
Port 1 Pin 2	Pink
Port 1 Pin 4	White
Port 2 Pin 2	Red
Port 2 Pin 4	Green
Port 3 Pin 2	Black
Port 3 Pin 4	Yellow
Port 4 Pin 2	Violet
Port 4 Pin 4	Gray

Pin Out Table 3	
M12 6 Port 4-Pin ZipPort	
Function	Cable O.D. 0.35"
+V	Brown
-V	Blue
Ground	Green/Yellow
Port 1 Pin 4	White
Port 2 Pin 4	Green
Port 3 Pin 4	Yellow
Port 4 Pin 4	Gray
Port 5 Pin 4	Pink
Port 6 Pin 4	Red

Pin Out Table 4	
M12 6 Port 5-Pin ZipPort	
Function	Cable O.D. 0.40"
+V	Brown
-V	Blue
Ground	Green/Yellow
Port 1 Pin 2	Gray/Pink
Port 1 Pin 4	White
Port 2 Pin 2	Red/Blue
Port 2 Pin 4	Green
Port 3 Pin 2	White/Green
Port 3 Pin 4	Yellow
Port 4 Pin 2	Brown/Green
Port 4 Pin 4	Gray
Port 5 Pin 2	White/Yellow
Port 5 Pin 4	Pink
Port 6 Pin 2	Yellow/Brown
Port 6 Pin 4	Red

Pin Out Table 5	
M12 8 Port 4-Pin ZipPort	
Function	Cable O.D. 0.35"
+V	Brown
-V	Blue
Ground	Green/Yellow
Port 1 Pin 4	White
Port 2 Pin 4	Green
Port 3 Pin 4	Yellow
Port 4 Pin 4	Gray
Port 5 Pin 4	Pink
Port 6 Pin 4	Red
Port 7 Pin 4	Black
Port 8 Pin 4	Violet

Pin Out Table 6	
M12 8 Port 5-Pin ZipPort	
Function	Cable O.D. 0.43"
+V	Brown
-V	Blue
Ground	Green/Yellow
Port 1 Pin 2	Gray/Pink
Port 1 Pin 4	White
Port 2 Pin 2	Red/Blue
Port 2 Pin 4	Green
Port 3 Pin 2	White/Green
Port 3 Pin 4	Yellow
Port 4 Pin 2	Brown/Green
Port 4 Pin 4	Gray
Port 5 Pin 2	White/Yellow
Port 5 Pin 4	Pink
Port 6 Pin 2	Yellow/Brown
Port 6 Pin 4	Red
Port 7 Pin 2	White/Gray
Port 7 Pin 4	Black
Port 8 Pin 2	Gray/Brown
Port 8 Pin 4	Violet

Note: Pin Out Tables are For 5-meter integrated cable only. Please refer to product insert for field wiring.

ZIPport M12 Junction Blocks – Dimensions

Dimensions

Figure 1: 4 Port 4 Pin

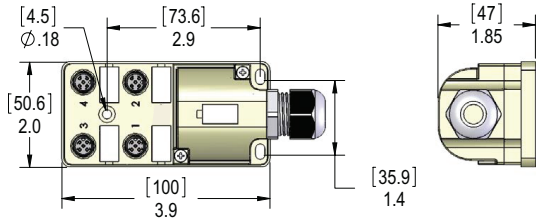


Figure 2: 4 Port 5 Pin

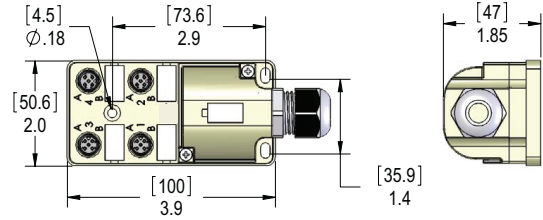


Figure 3: 6 Port 4 Pin

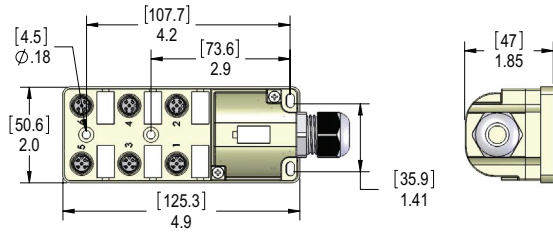


Figure 4: 6 Port 5 Pin

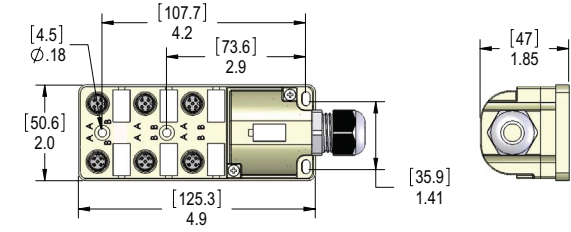


Figure 5: 8 Port 4 Pin

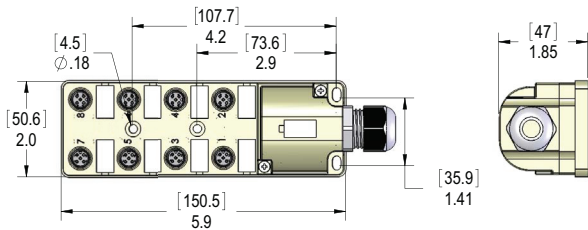
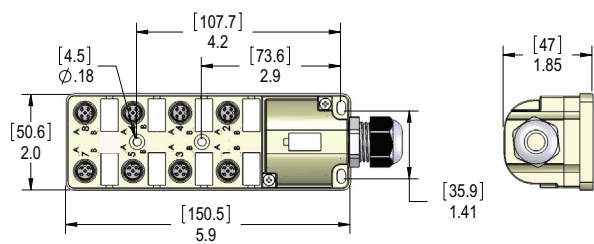


Figure 6: 8 Port 5 Pin



Note: All dimensions are shown in inches [millimeters]